**May Meeting****Friday, May 21
7:30 pm**

MARS**Robert Hampton, KF6FGH****Our Savior's Lutheran Church
1035 Carol Lane
Lafayette, CA**Robert will give a talk on the Military
Affiliate Radio System (MARS).**Presidential QRM****By Trevor Hall, WA6JAU**

In April MDARC held its annual auction with great success. One key item that was sold was a full ATV station, which is a rare find.

The technical committee has been hard at work this month installing two new antennas for 440 Mhz transmit and receive. A new computer system was installed to interface with IRLP or EchoLink. I have personally connected to the 440 repeater from Portland, Oregon and San Luis Obispo, California with IRLP and received fantastic signal reports. There is much "less" delay on IRLP with no drop outs. I would have connected from Spokane, Washington, but forgot to bring my 220 handheld. IRLP uses all the bands from 6 meters to 70 cm. Look at <http://www.irlp.net> before you leave on your next trip and stay in touch with IRLP. We also have a new DSL line for connection to IRLP and EchoLink.

Our speaker in May is Robert Hampton, KF6FGH. Robert will be talking about MARS, which is always an interesting subject. Come to the meeting on May 21 at Our Savior's Lutheran Church, 1035 Carol Lane, in Lafayette.

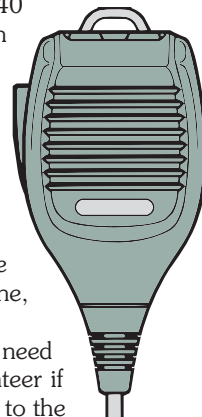
There are many service events being held this month and we still need ham operators for many of the events. Contact Pete Harris and volunteer if you can. It is great fun and really shows the capability of amateur radio to the community.

Volunteer help is also needed for PACIFICON. Come to the general meeting on May 21 and learn more about the various committees that need your help.

Field Day is right around the corner. Mark June 25 on your calendar and attend the meeting at Lundborg Landing on Bethel Island. If you are a new ham, Field Day is a great place to experience the world of HF.

Mother's Day is right around the corner on May 9th, so remember your Mom or significant other.

Have a great month and look forward to Memorial Day.

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**USA ARDF Championships Coming to California
(May 1, 2004) ARRL**

Amateur Radio Direction Finding (ARDF) enthusiasts across the US are getting themselves and their gear ready for the fourth annual national ARDF Championships next month. ARRL ARDF Coordinator Joe Moell, K0OV, says, the sport—also known as radio-orienting and foxhunting—is an all-on-foot “adventure in the woods” to see who can track down and find the most hidden transmitters in the shortest time. The Santa Barbara Amateur Radio Club (SBARC) will host the fourth annual USA ARDF Championships. Radio-orienters from all over the country plus visitors from abroad are expected to attend. Some competitors who have participated in previous national and world championships now are considered experts, but Moell says there are also plenty of newcomers who want to learn how to become the champions of the future.

Equipment for hunting radio foxes can be very simple and inexpensive,” Moell says. “Most beginners do very well by augmenting their handheld VHF transceivers with simple Yagi antennas made out of a steel measuring tape and PVC pipe from the hardware store.” For “closing in,” Moell says, an offset RF attenuator consisting of some \$15 worth of small parts will knock down the signal and keep the receiver's S-meter within its scale. “Plans are on the Web, and kits are available, so warm up your soldering iron,” he adds.

The ARDF competitive courses are open to anyone of any age and at any foxhunting skill level. No Amateur Radio license is needed. Medals in the event will be awarded in five age categories for males and four for females, in accordance with International Amateur Radio Union (IARU) rules.



Mt. Diablo Amateur Radio Club W6CX

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(925) 932-6125

The *Carrier* is a monthly publication of the Mount Diablo Amateur Radio Club (MDARC). It is the policy of the editor to publish all material submitted by the membership provided such material is in good taste, relevant to amateur radio and of interest to MDARC members, and space is available.

All material must be submitted to the editor by the first day of the month of publication. Material is accepted on a first-in, first-out basis. Articles and other material may be submitted via Internet email to carrier@gardnerclan.net or delivered to the editor at the address listed in the club roster. Material will be accepted in plain ASCII or rich text format (RTF). Material may also be submitted as hardcopy.

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TCP/IP: 145.71

General Meeting Minutes

April 16, 2004

The meeting was called to order by president, Trevor Hall, WA6JAU, at 7:00 p.m. This was the night of the annual auction and the only business was a request for reimbursement by Tim Barrett, K6BIV for the purchase of IRLP board, computer and related connections for \$858. The board had recommended approval. On motion the payment of \$858 to Tim Barrett was approved.

Dick Schulze, AA6DL, Secretary

Board Meeting Minutes

April 5, 2004

The meeting of the board of directors of MDARC, held on April 5, 2004, at Bakers Square Restaurant in Concord, was called to order by president, Trevor Hall, WA6JAU, at 7:30 p.m. The minutes of the February 2, 2004 meeting were approved.

Board Members Present: Bob Beard, KG6FPZ, Dick Brown, KT6X, Howard Burk, KE6PTT, Jay Caldis, KT6Y, Trevor Hall, Harold Johnsen, AE6FC, Dana Jones, K6BRR, and Dick Schulze, AA6DL.

Other Members and Guests: Tim Barrett, K6BIV, Dave Gordon, N6SWE, Keith Lattin, N6PMF, George Roush, WB6OFH, John Schulze, KR6CR, and Pete Slagle, K6XL.

Treasurer's Report: Harold said there is \$48,555 in the bank not including funds in the PACIFICON account. He has decided that it is not necessary to treat the PACIFICON proceeds as taxable and will file the tax return by May.

Trailer: Trevor said the ARRL insurance policy does not cover the trailer for public liability and any coverage would be by the policy of the driver of the towing vehicle. There is a possibility that the Sheriff's department will take over the ownership.

Auction: John said the rules will appear in the April *Carrier*.

PACIFICON: John said the Marriott has a request for the third weekend of October 2006 but they would defer to us if we would commit to that date. On motion by Dick Brown, the board voted to hold PACIFICON in 2006.

Minors: Trevor had an inquiry about minors participating at public service events. The board took no action and felt it was within the discretion of the event manager to decide who could participate in any particular event and on what terms, whether adult or minor.

Field Day: Lundborg's Landing has been reserved for the event.

Directory: Bob will have the directory ready for distribution at the April auction meeting. Pete will prepare a list of the members who have requested printed copies of the roster.

Membership: Pete needs additional information for the membership cards so they will have to be separately mailed from the *Carrier*. He will prepare a list of members who have not renewed and send it to Dick Brown who will divide it up for board members to call to urge renewal.

Picnic: The board set the price at \$5.

IRLP/EchoLink: Tim Barrett made a presentation of the need to replace the computer loaned by Howard for the use of EchoLink. On motion by Dick Brown the board approved the purchase of IRLP board, computer and related connections for \$858.69 and to ask the membership to approve the action.

Technical Committee: Keith said the tower climbers are scheduled for Thursday, April 8, 2004. The 220 power supply has been rebuilt and is ready for installation.

Adjourned: The meeting adjourned at 9:00 p.m.

Dick Schulze, AA6DL, Secretary



A Disturbing Practice

By T.O.M.

(This article first appeared in the April 1998 Carrier)

One of the uses of ham radio is to provide assistance in the event of an emergency. When one encounters a reason to call for assistance, it is the usual practice most places to interrupt an on-going QSO with the word "Break" if you have priority traffic, or "Break-Break" for emergency traffic. Emergency traffic is generally defined as something related to immediate danger to persons where priority is all other emergency related traffic that can affect safety.

Lately, a number of operators on W6CX have used the word "Break" to gain access to on-going QSOs. This is not a preferred practice and one should not use this means of entering a non-emergency or priority QSO.

If you wish to interrupt a QSO for priority or emergency reasons, by all means say "Break" or "Break-Break". The users of the frequency should immediately turn the frequency over to you. And not with a message such as, "OK, breaker, just a minute..."

If what you wish to do is to join a QSO in progress, the preferred method is to announce your call as the frequency is being handed over from one operator to another and wait to be acknowledged. If you want to use the frequency for a brief call or for autopatch purposes, the usual practice is to say, "Call, Please" and wait for the users of the frequency to acknowledge you and tell you to go ahead. Common courtesy dictates that you be brief in your use of the frequency and return it to the original users with a "Thanks for the use of the Frequency" message.

By following these preferred practices regarding breaking into QSOs, we can all be assured that when an emergency does occur, others will promptly clear the frequency for use by the station handling the traffic and giving aid.

-The Old Man

All-tube PC Astonishes Club!

By Lord Euphell Forritt

(This article first appeared in the June 1998 Carrier)

My experience has been, to a large extent, with vacuum tubes. When I attended engineering college, solid state devices were very new technology and information about them was difficult to obtain. In my quest for hands on experience with these new-fangled PCs, I decided to incorporate the old with the new.

I first decided on a name that would be descriptive of my goal and decided on 04-01. The tube I chose has the advantage of consuming low power and at the same time, has two triodes within one envelope. I decided on the 12AX7. This is a very basic duo-triode with adequate power handling capability and is comparatively cheap to buy.

The parameters of the computer itself had to be considered as well. If one is to have adequate RAM, it is necessary to provide for at least 8 MB running up the number of 12AX7s needed. Therefore, I placed an order directly with a factory in the small Baltic country of Krakup Wackout. The President, Ised Nokitoff, was flabbergasted at the size of the order. He acted like no one had ever placed an order for four million 12AX7s before! I also informed him that I would be needing sockets for them as well. Since I have no experience with etching printed circuits, point to point wiring will be necessary and at this time, my store-bought computer does not have the capacity to calculate the number of solder connections or the amounts of solder needed for the project. I contacted an engineering firm to assist

with the calculations, but the person who answered the phone must have been watching a rerun of "Home Improvement" and was laughing so hard that all I could get between his fits was something about "must be (ha ha) related (ha ha ha) to Tim!"

To assure that there is adequate power, I contacted the power company and had some trouble getting across to them the need for 105,000 volt feed mains to reduce current load. They referred me to Blunderbuss Power Administration. Those folks need to get their phone system repaired. I kept getting a lot of what sounded like profanity and cut off.

I calculate the need to add some space to the shack, probably 350,000 square feet. To handle the heat, I will add some exhaust fans. I believe a capacity of 200,000 cubic feet per minute will handle it. The flow will be directed along the beach to enhance the off season temperature.

In design calculations, it seems that screen redraws for the 04-01 will take about 6.31 minutes, time to allow the operator to duck out for a cup of coffee.

It appears that the cost of the 04-01 will come in at about \$23 million and should be ready by April 1 of 2004. If you have information about where I can obtain a wall wart of the proper voltage and current rating please let me know (150 VDC at 15 MegW or better).

[Jim Keightley, K7NPS—From World Radio]

FCC Denies Filing Deadline Extension Requests in BPL Proceeding

(NEWINGTON, CT, Apr 30, 2004) The FCC has denied requests—including one from the ARRL—to extend the comment filing deadline in the Commission's broadband over power line (BPL) proceeding, et Docket 04-37. As a result, the deadline to file comments will remain Monday, May 3; reply comments will be due by Tuesday, June 1. The League had asked the Commission to extend the comment and reply comment deadlines by 45 days to allow time for the National Telecommunications and Information Administration (NTIA) to conclude its study at BPL field trial locations. The ntia released its study April 27. FCC Office of Engineering and Technology Chief Edmond Thomas wrote the Order denying the extension requests. It was released April 30.

"It is the policy of the Commission that extensions of time shall not be routinely granted," Thomas said in the Order. "We do not believe that it would be in the public interest to delay this entire proceeding by several weeks. Parties have not provided us with any specific information regarding the expected completion date of any other reports they expect to submit or to see submitted, nor is any reason proffered why such reports could not be submitted in a timely fashion."

The FCC said "a number of parties" had asked the Commission to extend the comment deadlines anywhere from 45 days to 180 days. The FCC's Notice of Proposed Rule Making in the BPL proceeding was released February 23.

"In their pleadings, parties predicate their request for extension of time on the release of the study of BPL systems by the National Telecommunications and Information Administration," Edmonds said. "The parties indicate that an extension of time for evaluating the report after its public release is essential to a meaningful review of the report." Edmonds said that those wishing to address the NTIA study in their filings may file comments "at any time prior to the end of the reply comment period on June 1."

Earlier this year, FCC Chairman Michael K. Powell turned down a request by US Rep Greg Walden, W7EQI, to delay further action on the BPL proceeding until the NTIA study's had been released and stakeholders had had a chance to evaluate it before commenting. Walden made the request in his role as a member of the House Subcommittee on Telecommunications and the Internet, not as an individual amateur licensee. Powell assured Walden February 3 that the FCC would give "thorough consideration" to all BPL-related studies before taking final action in the proceeding.

For more information on BPL, visit the "Broadband Over Power Line (BPL) and Amateur Radio" page on the ARRL Web site.

K7RA Solar Update

SEATTLE, WA, Apr 30, 2004—Carl Luetzelschwab, K9LA, is filling in for Tad Cook, K7RA, who suffered storm damage at his home earlier this week and has been without electricity or telephone (and Internet) service—Ed.

Solar activity was at moderate levels at the beginning of the reporting period—Friday April 23 through Thursday April 29—with several M1 and M2 class flares. Solar activity decreased to low levels in the latter half of the reporting period. Solar activity is forecast to be low for the next several days.

Geophysical activity ranged from quite to active levels during the reporting period due to several isolated active periods occurring at high latitudes. The geomagnetic field is expected to be at an active level on April 30, returning to quiet to unsettled levels on May 1 and 2.

The VOACAP and W6ELProp tutorials mentioned in last week's update are intended as introductory-level discussions of these readily available software packages. Both tutorials show how to download the software and set up the options. A sample prediction is run in each, and the outputs are discussed. For those interested in a more in-depth look at VOACAP, check out "What Is VOACAP Trying to Tell Me?" by Dean Straw, N6BV, and "VOACAP Quick Guide" by Jari Perkiomaki, OH6BG. Both articles are on the ARRL Technical Information Service Propagation page.

The smoothed sunspot number for May is predicted to be around 35—a far cry from the peak of 121 in April 2000. As Cycle 23 continues its descent, 10 meter aficionados are becoming more and more dejected. On the other hand, 160 meter users are perking up as solar minimum approaches.

If you're interested in 160-meter propagation and are going to Dayton, check out the Topband Dinner Friday night, May 14. Contact George Taft, W8UVZ, w8uvz@voyager.net for more information. Eric Scace, K3NA, will give a program about the 3B9C 160-meter effort.

Sunspot numbers for the reporting week will appear in next week's "Solar Update."

For more information concerning propagation and an explanation of the numbers used in this bulletin see the ARRL Technical Information Service Propagation page.



Upcoming 2004 Public Service Events

By Pete Harris, KE6ZIW

The events listed below are coming up in the near future and *we still have some slots available*. For most events all you need is a hand-held 2 meter radio and an extra battery. Give me a call or email to sign up (925-228-4503, pharris125@comcast.net).

1. Human Race
5/8/04, Heather Farms Park, Walnut Creek
Radio Coordinator: Jeff Hart
2. Escape From Alcatraz
6/?/04, San Francisco Waterfront & Bay
Radio Coordinator: Barry Bettman
3. Oakland Hills Trailride
6/19/04, Redwood & Chabot Regional Parks
Radio Coordinator: Tom Seabury
4. 4th of July Parade
7/4/04, Downtown Pleasant Hill
Radio Coordinator: Pete Harris
5. Alcatraz Challenge
7/?/04, San Francisco Waterfront & Bay
Radio Coordinator: Barry Bettman



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Ed Ritchie, K6SFD
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Steve Adams, KF6WNH

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(800) 854-6046
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Eric, KA6IHT, Mgr.
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oakland@hamradio.com

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CALENDAR OF EVENTS

May 3	7:30 pm	MDARC Board Meeting	Baker's Square Willow Pass, Concord
May 21	7:30 pm	MDARC General Meeting	Our Savior's Lutheran Church
May 30		June Carrier Deadline	
June 7	7:30 pm	MDARC Board Meeting	Baker's Square Willow Pass, Concord
June 25	7:30 pm	MDARC Meeting/Field Day	Lundborg Landing

The Carrier
Newsletter of the Mt. Diablo Amateur Radio Club
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Change in Service Requested

MDARC Meeting: May 21